**Title**: Carbon Footprint

**Grade**: 3

**Subjects**: Science

**Lesson Overview**: Students calculate their carbon footprint, discover how they can reduce it, and share these with the class.

**Standards**: Next Generation Science Standards

1. [Make a claim about the merit of a solution to a problem by citing relevant evidence about how it meets the criteria and constraints of the problem. (3-ESS3-1)](http://www.nap.edu/openbook.php?record_id=13165&page=192)
2. [A variety of natural hazards result from natural processes. Humans cannot eliminate natural hazards but can take steps to reduce their impacts. (3-ESS3-1)](http://www.nap.edu/openbook.php?record_id=13165&page=192)

**Objectives**:

1. Students will calculate their carbon footprint.
2. Students will identify and present ways to reduce their carbon footprint.

**Lesson Procedures**:

1. The teacher will use the guiding questions to review information from the previously seen video by the Pacific Institute for Climate Solutions in British Columbia, Canada at <https://www.youtube.com/embed/VTfgNFz1DBM?autohide=1&controls=1&showinfo=0>

What is a carbon footprint? What are some possible sources that cause a carbon footprint? Why is it important to reduce one’s carbon footprint?

1. The teacher will model how to calculate a carbon footprint using the carbon calculator, Zero Footprint Kids Calculator, at <http://meetthegreens.pbskids.org/features/carbon-calculator.html>.
2. Students will calculate their own carbon footprint using the Zero Footprint Kids Calculator.
3. The teacher will model how students use the results from the carbon calculator to create a poster depicting how much of their carbon footprint comes from the following categories: Travel, Food, Home, Usage, and Waste. The template at <https://www.pinterest.com/pin/405957353889465188/> may be used.
4. Students will make their own carbon footprint posters.
5. Students will select 3-5 ways that they can reduce their carbon footprint from the possible “goals” identified by the carbon calculator.
6. Students will present their posters and goals to the class.
7. The teacher will pose the following questions to reflect on the day’s lesson: Are there any patterns students noticed from the presentations? Was there anything they learned today that was new or surprising? What might happen if students choose to implement their goals versus do nothing?